

REMARKS

Reconsideration of the application is requested.

Claims 1-18 remain in the application. Claims 1-18 are subject to examination. Claims 1, 5, 7, 13, 14 and 16-18 have been amended.

In item 6 on page 4 of the above-identified Office Action, the Examiner objected to claim 1 and requested that the word "than" be added. The Examiner's objection has been noted and claim 1 has been amended to address the Examiner's objection.

In item 8 on page 5 of the above-identified Office Action, claim 7 has been rejected as being indefinite under 35 U.S.C. § 112, second paragraph. Claim 7 has been amended to state that the feeding and energizing steps are performed before the etching step.

It is accordingly believed that claim 7 meets the requirements of 35 U.S.C. § 112, second paragraph. The above-noted change to claim 7 is provided solely for clarification or cosmetic reasons. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

In item 2 on pages 2-3 of the above-identified Office Action, claims 1-5, 7-15 and 17 have been rejected as being fully anticipated by U.S. Patent No. 5,880,033 to Tsai (hereinafter Tsai) under 35 U.S.C. § 102.

The rejection has been noted and claims 1, 14 and 17 have been amended in an effort to even more clearly define the invention of the instant application. Support for the changes is found on page 2, lines 21-22, and on page 7, lines 32-34 of the specification of the instant application.

It has been a common belief for the person skilled in the art that parameter settings for plasma etching of a wafer must be scaled up with increasing wafer size. For example, the reference by Sanjay Tandon from Lam Research clearly states that a direct portability of etching parameter settings for 8 inch wafers to 12 inch wafers will fail. For example, page 76, right hand column, second line states: "Not only does the plasma need to scale seamlessly from 200 mm to 300 mm" and lines 37-42 of the same column states: "If the optimized etch parameters of a 200 mm process ... are ported without change to a 300 mm chamber, the macroscopic loading effect will prevent optimized etch results". The same belief is disclosed in Lee et al. (US 5,665,203). Accordingly, the

etch uniformity will probably be worse with a transition from 200 mm to 300 mm wafers. Lee et al. propose to employ a more sustained overetch (column 5, lines 45 to 53). It is the merit of the instant application that the same parameter settings for etching an 8 inch wafer can be used to etch a 12 inch wafer.

Tsai teaches parameters for an 8 inch wafer (see column 9, line 2). Although Tsai teaches parameters for etching 8 inch wafers, Tsai is silent about setting up the chamber for 8 inch wafers and then putting in 12 inch wafers for the actual etching process. A person skilled in the art would consider the teachings of Tandon or Lee, which clearly states that the parameter settings for 8 inch wafers in a plasma etch process cannot be maintained unchanged for etching 12 inch wafers. Simply put the prior art teaches away from the idea of the instant application and that is using the same parameter settings for 8 inch wafers as for 12 inch wafers. The second - fourth paragraphs of claim 1 of the instant application clearly recites setting up for etching an 8 inch wafer and then putting in a 12 inch wafer for the actual etching process.

The Examiner states that column 5, lines 35-36, teaches etching a range of 6-12 inch wafers. First, this sentence

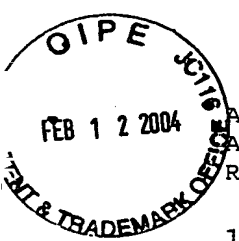
merely teaches that the reaction chamber is big enough to handle wafers in the 6-12 inch range. Nowhere does Tsai teach setting the parameters for etching an 8 inch wafer, and then substituting a 12 inch wafer for the actual etching using the parameters set for the 8 inch wafer.

In item 4 on pages 3 and 4 of the above-identified Office Action, claim 6 has been rejected as being obvious over Tsai in view of U.S. Patent No. 6,613,682 to Jain et al.

(hereinafter Jain) under 35 U.S.C. § 103. Claim 6 is dependent on claim 1. Amended claim 1 is believed to be allowable and therefore claim 6 is also believed to be allowable.

In item 5 on page 4 of the above-identified Office Action, claims 16 and 18 have been rejected as being obvious over Tsai in view Jain and further in view of U.S. Patent No. 5,665,203 to Lee et al. (hereinafter Lee) under 35 U.S.C. § 103. Claims 16 and 18 are ultimately dependent on claim 14. Amended claim 14 is believed to be allowable and therefore claims 16 and 18 are also believed to be allowable.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 14 or 17. Claims



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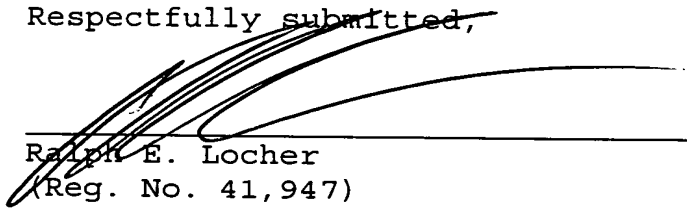
Reply to Office Action of November 18, 2003

1, 14 and 17 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on either claim 1 or 14.

In view of the foregoing, reconsideration and allowance of claims 1-18 are solicited.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,


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REL:cgm

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